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Cows can't Complain Out Loud. so, at Times, shouldn't we Do it for Them?

Jos J Vermunt*

Adjunct Professor (Cattle Health and Production), College of Public Health, Medical and Veterinary Sciences, James Cook University, Townsville, QLD, Australia

*Corresponding author: Jos J Vermunt, 80 Russell Robertson Drive, Havelock North 4130, New Zealand

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Opinion:

Until relatively recently, the welfare of the dairy cow was not often perceived as being poor. However, the dairy industry has been changing, and increasing attention has been paid by the general public to the animals' welfare. Nowadays the consumer demands food from animals that are kept under conditions which allow them to function more or less naturally, and which provide shade and shelter [1]. It is now generally accepted that the animal husbandman has a responsibility to the animals under his care and to society in general in order to maintain an acceptable standard of humane care of animals. In the Northern Hemisphere, where most dairy cows are housed indoors either permanently or at least during a significant part of the year, there are industry standards or codes that pay specific attention to the animals' comfort. In general, they are housed in either straw yards or comfortable barns, where they have access to properly designed cubicle stalls that have the correct dimensions [2-4]. From a cow's point of view, there is much to say in favour of the year-round, pasture-based type of dairy farming we usually have in Australasia. Overall, cows are better off outside; there are no housing-related illnesses, they have plenty of fresh air and exercise, and they have access to fresh pasture most of the time. However, there are situations associated with the way we farm, which in my personal opinion, can have significant negative animal welfare

implications. This can be illustrated by the following scenarios (A-F), which I have encountered while working as a veterinarian in cattle practice, both in New Zealand and Australia. They were real, but by no means exhaustive, and involved various degrees of animal suffering under different circumstances.

A. It's a cold, wet and windy winter evening, and a smallish dairy heifer has been calving for several hours. Veterinary assistance is called, and the animal is brought to the dairy shed. By the time the veterinarian arrives, the heifer is lying stretched-out on her side in the concrete yard, and appears to be fairly exhausted. Because of the presence of a grossly oversized, live calf the decision is made to carry out a Caesarean section [5]. The animal is coached to her feet and restrained in a head crush. The surgery goes well, and one and one-half hour later she is released from the crush, and sent down a muddy track to a nearby paddock. Her newly delivered wet and shivering bull calf is put in the same paddock, which is very boggy, has a significant amount of surface water present, due to the ongoing heavy rain, but very little grass cover. There are no farm buildings or trees for the heifer and her calf to take shelter. As far as the standard aftercare for this type of surgery [5] is concerned, no extra measures, such as a canvas or polyester cow cover, are arranged for by the farmer. For example, commercially available waterproofed, winter cow covers come with a blanket lining, designed to provide



warmth and conserve energy in sick or convalescent animals in cold conditions.

The issue here is: "How would we feel in a situation like this?" Just imagine being out in the open, unprotected from the inclement weather, immediately following major abdominal surgery. In my opinion, such animals should be housed indoors, or at least protected from the weather, and provisions should exist on dairy farms to be able to do this.

B. A similar scenario can be drawn up for a cow presented with an emphysematous calf. The animal has moderately sunken eyes and appears to be suffering from toxaemia. After a difficult, total fetotomy [6], which has taken two hours, the cow is turned out into the cold night and left to her own devices.

In many cases, the dam requires less postoperative care after a fetotomy than after a Caesarean section [6]. However, in this particular case and upon completion of the fetotomy, the obviously sick and dehydrated animal should be housed in a relatively warm barn or shed - a place where it can be properly nursed, fed and watered, and where it is protected from any adverse weather conditions.

C. A typical "downer cow" is presented in July, while being down in the middle of a muddy break, which is an already grazed part of a rather exposed paddock. Although rather bright and alert, the animal has been in sternal recumbency for around 48 hours, and is now suffering from mild hypothermia (her core body temperature of 36°C just registers on the thermometer). Some coarse hay and a bucket of water are placed in front of her.

The downer cow syndrome is an animal welfare issue [7], and the veterinarian should be proactive about the problem. If recovery does not occur within a few days the prognosis is uncertain, and the owner and veterinarian must decide whether to continue providing clinical care to the animal or that the animal should be euthanized.

Although it has been estimated that approximately half of all downer cows will get up in 4 to 7 days, this will greatly depend on the quality of nursing provided [8]. The overall onfarm nursing and management of downer cows is arguably more important than veterinary treatment in respect of the likely outcome of the downer cow [9]. Such animals need to be transported to a barn, bedded on a deep layer of straw or

sand, and given a substantial amount of care (approximately one half of a labour unit to do this properly). However, what percentage of downer cows is actually receiving that sort of care? Having facilities to house cows would greatly facilitate the care of such animals, and would certainly increase the odds of a positive outcome in many cases. Furthermore, in addition to the obvious animal welfare issues involved, recumbent cattle still represent an important source of income for the owner, which will make looking after them all the more worthwhile.

D. A dairy heifer is presented with peracute gangrenous staphylococcal mastitis (so-called 'black mastitis'). The animal is quite ill, recumbent, and unable to rise. Her temperature is subnormal, the heart rate markedly elevated, and two quarters of the udder are grossly swollen, bluish discoloured, hard and cold to the touch. The secretion is reduced to a small volume of blood-stained serous fluid. The owner does not want to accept the fact that such cases of mastitis are highly fatal, and that, in the unlikely event of the animal surviving, both affected quarters will invariably slough [10]. He doesn't accept the euthanasia route and wishes to take the "you always have to try" approach; so he goes ahead with treating her, using some antibiotics he still has on hand.

Animals such as the one described above undoubtedly would benefit from being housed in a warm barn, where they can be looked after properly. Although it would unlikely improve her chance of survival in this case, it certainly would be more acceptable from her welfare point of view.

E. In late August, a recently calved Holstein-Friesian cow with a significant amount of white (non-pigmented) skin has been suffering from a severe episode of photosensitisation (so-called 'spring eczema'). During the following month, most of the affected skin has peeled, thus leaving large areas of very sensitive, raw, and often bleeding tissue exposed. The animal is kept in the herd, and during the remainder of the lactation her badly affected skin remains unprotected against the intense sunlight.

The pain and itch associated with the lesions cause her to scratch her skin at every available opportunity, which is further aggravating the problem. 'Spring eczema' is usually classified as having an uncertain aetiology. In adult, pasture-



based cattle, the majority of cases are secondary to already existing liver damage [11]. For the other cases it is postulated that such animals are unable to cope with the enormous supply of chlorophyll and its metabolite phytoporphyrin, causing significant amounts of phytoporphyrin to spill over into the bloodstream, resulting in acute and severe photosensitisation. In these cases, therefore, it may be a simple dose-response relationship.

Using a cow cover would not be very helpful in this case, since the rather coarse material of the cover will only cause further injuries to her already painful and fragile skin. Animals with such severe photosensitisation lesions need to be kept out of direct sunlight. Ideally, they should be housed during the day and allowed to graze at night. Since this is often not realistically possible or practical in Australasia, would it not be better to cull these animals? Furthermore, many animals with severe 'spring eczema' lesions hardly ever heal completely, and a significant number eventually develop skin cancer lesions [11]. Therefore, should there not be an exemption to the transport code, so that such cattle will be allowed to be transported for slaughter to a nearby abattoir, i.e. when showing the photosensitisation lesions? Surely, this will be the preferred approach as far as the animals' welfare is concerned.

F. Most cows that have reached the end of their productive life are culled from the herd and sent for slaughter. Chronically lame animals usually undergo the same fate. Although this is an acceptable outcome associated with dairy farming, the manner in which some animals are handled and transported is not. Ever witnessed a lame cow scrambling up the very steep ramp onto the top deck of a so-called 'double decker' stock truck, while being "encouraged" by the use of an electric cattle goad? In the same league, many animals that are transported to go out-grazing, or to return from grazing away, often have trucking-related injuries, such as severe grazing, bruising and/or deep cuts over their lumbar and sacral regions.

It is recommended that if animals are being loaded onto stock trucks the ramp should be long and sloping not more than 1 in 7, should allow a good grip for the feet of the cattle and should have solid sides, and the interior of the vehicle should be well lit [12]. Just as important as truck design is the

behaviour of the transport staff [13]. Problems may arise because of rough treatment during loading, and over- or understocking of compartments, amongst others. Another major transport problem is the effect of very long journeys, especially where there are no stops for food and water intake. Should we not show some more compassion for our cows, particularly because they have spent all their lives producing milk and, therefore, making us money? In my opinion, the transport of stock should be better regulated, and the people handling the animals better trained, and being made aware that animals do feel pain as much as we do. For example, In New Zealand lame cows sent for slaughter need to be certified by a veterinarian as suitable for being transported.

On the vast majority of dairy farms in Australasia there are no proper facilities to house or hospitalise injured and/or sick cattle, or animals that need some other form of 'intensive care'. Several years ago, when visiting some farms in the Canterbury region of New Zealand, I came across a beef farm, where the owner had constructed three "loose boxes" that were located immediately next to the cattle crush and yards. These had been purpose-built for housing recently calved cows (i.e. those that had an assisted calving) and their calves, as well as any sick animals, and those that need follow-up treatment. There was power supply and plumbed-in water, and ample conserved feed was stored nearby. It must be a real pleasure for any attending veterinarian to have such facilities at their disposal. Clearly, they also will have a great positive impact on the welfare of the animals concerned.

Animal welfare is and should remain a critical role for all veterinarians. Most will have a firm view on issues, such as ear cropping and tail docking in dogs, tail docking in cattle and sheep, and dehorning in cattle, procedures that nowadays are either prohibited or heavily regulated. Therefore, should we not voice the same concern for the wellbeing of our sick, less mobile or unproductive dairy cows as well? Hence, I am emphasizing the issue for the need of proper on-farm facilities that can provide adequate shade and shelter for the animals, when deemed necessary. Our cows certainly deserve it!

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